

★DENY

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Lightning striking point determination method for optical fibre transmission line in optic communication - involves determining lightning striking point based on time difference between two polarisation fluctuations and momentary variation speed obtained according to stokes parameter

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The method involves transmitting a light signal through a first optical fibre of an optical transmission line (11) which includes overhead composite optical fibres (12) and a ground wire. The optical fibres at the receiving end of the optical transmission are short-circuited such that the light signal is returned to the transmitting end of the optical transmission line.

The fluctuation of polarisation of the returned light signal is detected as a stokes parameter. A momentary variation speed is obtained based on the stokes parameter. The lightning striking point is determined according to the time difference between two polarisation fluctuations and the obtained momentary variation speed.

ADVANTAGE - Ensures accurate and simple detection of lightning striking point on optical transmission line. Enables full automation of lightning striking point determination process. Ensures immediate inspection and repair of transmission line portions damaged by lightning, thus shortening service interruption time. (6pp Dwg.No.1/8)

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